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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|---------------------|------------------|
| 10/571,886   | 03/13/2006  | Donald Robert Langdon | 2003CH201           | 2678             |
| 25255 7590 12/18/2009<br>CLARIANT CORPORATION<br>INTELLECTUAL PROPERTY DEPARTMENT<br>4000 MONROE ROAD<br>CHARLOTTE, NC 28205 |             |                       |                     |                  |
| EXAMINER<br>BOYLE, ROBERT C  |             |                       |                     |                  |
| ART UNIT   |             | PAPER NUMBER          |                     |                  |
| 1796   |             |                       |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/571,886

**Applicant(s)**

LANGDON ET AL.

**Examiner**

ROBERT C. BOYLE

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The examiner assigned to the current application has been changed. The new examiner's name and contact information are stated at the end of this action. Applicant is requested to take note of the change.

***Response to Amendment***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The new grounds of rejection set forth below are not necessitated by applicant's amendment filed on September 3, 2009. Thus, the following action is properly made NON-FINAL.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites: "comprising a polymeric material, mica or a micaceous material, metal sulphide and one or more non-black pigments..." It is unclear as to whether this is a list of three components, wherein the first component can be "a polymeric material, mica or a micaceous material" or whether this is a list of four components, where the second component may be "mica or a micaceous material". It is advised that Applicant insert a form of delineation to clarify.

***Claim Rejections - 35 USC § 103***

7. Claims 1, 4-6, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cradic** (US 2002/0072559) in view of **Toshikatsu** (JP 05-571886). The rejection is adequately set forth in paragraphs 6-15 in the office action mailed on May 15, 2009 and is incorporated here by reference.
8. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cradic** (US 2002/0072559) in view of **Toshikatsu** (JP 05-571886) and **Hartman** (US 6,019,833). The rejection is adequately set forth in paragraphs 16-19 in the office action mailed on May 15, 2009 and is incorporated here by reference.
9. Claims 1, 4-6, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Feng** (US 5,976,411) in view of **Thakrar** (US 2004/0114101).
10. As to claims 1, 4-5, 10, Feng teaches a composition with polyethylene, micaceous material, and an inorganic pigment (Table 1) and that the composition may further comprise 0.001-2 wt% of a whitening pigment, such as zinc sulfide, where the composition can be extruded (col. 5, ln. 26-67; col. 6, ln. 6-9, 53-65; col. 8, ln. 30-43; col. 9, ln. 8-17; col. 10, ln. 18-32). Feng does not teach that the pigment is an organic pigment.
11. In view of Thakrar's recognition that inorganic pigments and organic pigments are equivalent and interchangeable (§ 29), it would have been obvious to one of ordinary skill in the art to substitute inorganic pigments with organic pigments and thereby arrive at the present invention. Case law holds that the mere substitution of an equivalent (something equal in value

or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

12. The ranges taught by Feng overlap the claimed ranges. It is well settled that where prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See MPEP 2144.05; *In re Harris*, 409, F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 3d 1379, 1382 (Fed. Cir 1997); *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

13. As to claim 6, 9, Feng teaches the mica is present in 0.001-1 wt% mica material (col. 8, ln. 43-54) and 0.5 wt% (Table 1).

14. Claim 8 recites a property of the composition. While Feng does not elaborate on the property, Feng teaches essentially the same composition and process as that of the claimed, and one of ordinary skill in the art would have a reasonable basis to believe the composition of Feng exhibits essentially the same properties. Since the PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobvious difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

15. Even if properties of the composition of the instant claims and the prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a composition having the claimed properties because it appears that the references generically embrace the claimed composition and one of ordinary skill in the art would have expected all

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embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed composition and the prior art give rise to unexpected results.

16. As to claim 11, Feng teaches the concentration of the pigment depends on the degree of luminescence desired and can range from 1 wt% to 30 wt% (col. 8, ln. 11-29) and is present in 5 wt% in the examples (Table 1).

17. Claims 1, 4-6, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Feng** (US 5,976,411) in view of **Hayashihara** (US 5,824,715).

18. As to claims 1, 4-5, 10, Feng teaches a composition with polyethylene, micaceous material, and an inorganic pigment (Table 1) and that the composition may further comprise 0.001-2 wt% of a whitening pigment, such as zinc sulfide, where the composition can be extruded (col. 5, ln. 26-67; col. 6, ln. 6-9, 53-65; col. 8, ln. 30-43; col. 9, ln. 8-17; col. 10, ln. 18-32). Feng does not teach that the pigment is an organic pigment.

19. In view of Hayashihara's recognition that inorganic pigments and organic pigments are equivalent and interchangeable (col. 6, ln. 40-55), it would have been obvious to one of ordinary skill in the art to substitute inorganic pigments with organic pigments and thereby arrive at the present invention. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

20. The ranges taught by Feng overlap the claimed ranges. It is well settled that where prior art describes the components of a claimed compound or compositions in concentrations within or

overlapping the claimed concentrations a prima facie case of obviousness is established. See MPEP 2144.05; *In re Harris*, 409, F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 3d 1379, 1382 (Fed. Cir 1997); *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

21. As to claim 6, 9, Feng teaches the mica is present in 0.001-1 wt% mica material (col. 8, ln. 43-54) and 0.5 wt% (Table 1).

22. Claim 8 recites a property of the composition. While Feng does not elaborate on the property, Feng teaches essentially the same composition and process as that of the claimed, and one of ordinary skill in the art would have a reasonable basis to believe the composition of Feng exhibits essentially the same properties. Since the PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobvious difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

23. Even if properties of the composition of the instant claims and the prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a composition having the claimed properties because it appears that the references generically embrace the claimed composition and one of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed composition and the prior art give rise to unexpected results.

24. As to claim 11, Feng teaches the concentration of the pigment depends on the degree of luminescence desired and can range from 1 wt% to 30 wt% (col. 8, ln. 11-29) and is present in 5 wt% in the examples (Table 1).

25. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Feng** (US 5,976,411) in view of **Thakrar** (US 2004/0114101) and **Busch** (WO 02/068192). As the cited WO publication is in a non-English language, the English equivalent, U.S. Patent 2004/0071994 ("Busch"), has been utilized in place of WO '192. All column and line number citations are made with respect to the above mentioned U.S. document. The discussion with respect to Feng and Thakrar as set forth in paragraphs 9-16 above is incorporated here by reference.

26. As to claims 2-3, Feng teaches a composition with polyethylene, micaceous material, and an inorganic pigment (Table 1) and that the composition may further comprise 0.001-2 wt% of a whitening pigment, such as zinc sulfide, where the composition can be extruded (col. 5, ln. 26-67; col. 6, ln. 6-9, 53-65; col. 8, ln. 30-43; col. 9, ln. 8-17; col. 10, ln. 18-32). Feng and Thakrar do not teach that the pigment is an organic pigment.

27. Busch teaches laser pigments include mica and are preferably coated with metal oxides such as tin oxide or titanium oxide (§ 13, 91-94). It would have been obvious to use the oxide coated mica of Busch with the mica of Feng because a coating such as tin oxide would give the mica a white appearance because titanium oxide is a white pigment (§ 42).

28. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Feng** (US 5,976,411) in view of **Hayashihara** (US 5,824,715) and **Busch** (WO 02/068192). As the cited WO publication is in a non-English language, the English equivalent, U.S. Patent 2004/0071994 ("Busch"), has been utilized in place of WO '192. All column and line number citations are made

with respect to the above mentioned U.S. document. The discussion with respect to Feng and Hayashihara as set forth in paragraphs 17-24 above is incorporated here by reference.

29. As to claims 2-3, Feng teaches a composition with polyethylene, micaceous material, and an inorganic pigment (Table 1) and that the composition may further comprise 0.001-2 wt% of a whitening pigment, such as zinc sulfide, where the composition can be extruded (col. 5, ln. 26-67; col. 6, ln. 6-9, 53-65; col. 8, ln. 30-43; col. 9, ln. 8-17; col. 10, ln. 18-32). Feng and Hayashihara do not teach that the surface coating of the mica.

30. Busch teaches laser pigments include mica and are preferably coated with metal oxides such as tin oxide or titanium oxide (§ 13, 91-94). It would have been obvious to use the oxide coated mica of Busch with the mica of Feng because a coating such as tin oxide would give the mica a white appearance because titanium oxide is a white pigment (§ 42).

31. Claims 1-5, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Delp** (US 2004/0013969) in view of **Feng** (US 5,976,411).

32. As to claims 1, 4-5, 10, Delp teaches a composition with colorant, including organic pigments (§ 12-15), a laser absorbent substance, including mica coated with zinc oxide (§ 18-20), a thermoplastic such as polyethylene (§ 30) where the composition is laser markable (§ 38-40) and are subject to injection molding (§ 47). Delp does not teach the amount of zinc oxide present.

33. Feng teaches using 0.001-2 wt% of a whitening pigment, such as zinc sulfide (col. 8, ln. 30-43). This reference is relied on to illustrate that in the chemical arts, zinc sulfide is known as a pigment at the claimed amounts. Therefore, it is reasonable to conclude that this is an acceptable, general working range zinc sulfide to be utilized as a pigment.

34. The range taught by Feng overlaps the claimed range. It is well settled that where prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See MPEP 2144.05; *In re Harris*, 409, F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 3d 1379, 1382 (Fed. Cir 1997); *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

35. As to claims 2-3, Delp teaches the mica is coated with titanium oxide (¶ 18-20). It is well settled that it is prima facie obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506, 509, 173 USPQ 356, 359 (CCPA 1972). Also, case law holds that “it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

36. Claim 8 recites a property of the composition. While Delp and Feng do not elaborate on the property, Delp and Feng teach essentially the same composition and process as that of the claimed, and one of ordinary skill in the art would have a reasonable basis to believe the composition of Delp and Feng exhibits essentially the same properties. Since the PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobvious difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

37. Even if properties of the composition of the instant claims and the prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a composition having the claimed properties because it appears that the references generically embrace the claimed composition and one of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed composition and the prior art give rise to unexpected results.

***Response to Arguments***

38. Applicant's arguments filed September 3, 2009 have been fully considered and they are persuasive in part.

39. Applicant's arguments regarding the objection of claim 1 is persuasive and the objection is withdrawn.

40. Applicant argues that because 'mica' is in a different layer, the composition of Cradic does not teach the instant invention.

41. As is noted in the 112 rejection above, the limitation of 'mica' is in the alternative with a polymeric material. Because Cradic teaches a polymeric material (¶ 14), it satisfies the scope of claim 1. Therefore, Applicant's arguments are not persuasive.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT C. BOYLE whose telephone number is (571)270-7347. The examiner can normally be reached on Monday-Thursday, 9:00AM-5:00PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT C BOYLE/  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796